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NOTES AND EXTRACTS.

EDITORIAL REVISION.

The authors whose papers appear in the MONTHLY WEATHER REVIEW will sometimes observe that changes have been made in their phraseology, sentences have been omitted, textual matter converted into tabular matter, explanatory notes added by the Editor, etc. As these changes have been made in good

faith and under the conviction that they avoid introducing problematic questions, make the text of the article clearer, and increase its value to the readers of the REVIEW, therefore the Editor hopes they will not be taken amiss, and that his changes will not be considered as a case of officious meddling. No one can have the interests of the REVIEW more thoroughly at heart

than the Editor. His duty is to make it a medium of instruction to all. Whenever practicable, suggested changes in manuscripts have been referred back to the respective authors for their approval, but in a few cases this has not been practicable. In all cases the aim has been, not to put new ideas and words into an author's text, but to simply restate clearly the position that each author takes in reference to his own subject.

WIND EFFECTS.

Abstract of an article by MARK W. JEFFERSON, in the Journal of Geography, vol. 3, No. 1, January, 1904, pp. 1-20.

Climate may best be taught by inducing the student to observe and study the concrete facts of the weather. From these the characteristics of our climate may be deduced. The drawing of inferences from the facts, however, involves mental processes in which the beginner needs training. Familiarity with the inductive method is needed to give faith in it, and there is especial need of every possible test of the results. For this reason it is desirable to come to our conclusions by as many roads as we can find.

If it is desired to get the student to believe in our westerly winds as an important climatic feature, we may work along three lines:

1. Observe the weather vane and after some months find which wind has blown oftenest.

2. Study the weather map and make out on it the procession of highs and lows to the eastward.

3. Look at the trees that have grown exposed to the force of the winds for indications of thrust in one direction rather than in others.

To strengthen and confirm the somewhat vague and indefinite conclusions that the beginner may deduce from the first two methods, the evidence of the trees whose growth shows plainly the influence the prevailing wind is of the greatest value in teaching.

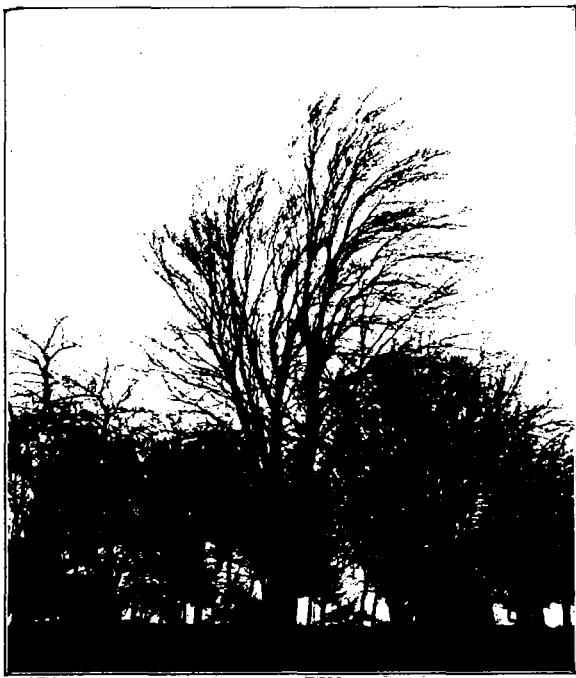


FIG. 1.—Maple at Ypsilanti, looking north.

The typical wind effect is not an inclination of the trunk, although this may appear where the ground is softened, either by moisture or by cultivation. The typical effect is a bending or inclining of the twigs to leeward, and for this reason the best season for these studies is after the fall of the leaf. Our prevalent westerly winds are recorded in the growth of the maples from New England to Michigan, fig. 1. The maple runs to slender and hairlike twigs, and the development of the

twigs is almost horizontal on the east side of the tree and vertical on the west, as if they had been combed upward on the other, see figs. 1 and 4. Maples give excellent wind effects everywhere that I have observed them, and if there are any about Dodge, Kans., where the prevailing wind is easterly, it would be interesting to know how they grow.

The results of this wind influence are individual with each kind of tree. While the cottonwood, at least about Ypsilanti, is resistant to wind effects, its cousin, the white poplar, shows them in a high degree. In the poplar, curves are strongly developed, see fig. 2. On the east side of the tree, the branches form curves concave to the ground. On the west, vertical lines would cut not a few branches in two points with the curve between concave to the east, so strongly are they bent to leeward as they grow. In this case it is a branch effect rather than a twig effect, while the individuality of the poplar comes out in the curve. The maple succeeds better in rearing its greater branches vertically into the air. There is a distinct curving here, too, in the more slender branches, but much less in degree.



FIG. 2.—White poplar, Ypsilanti, looking north.



FIG. 3.—Elm at Ypsilanti, looking north.

Elms are available for observation through a wide stretch of this country. The elm branches grow longer to eastward